ARTICLE

The Risk-Based Analysis of Climate Change: The Arctic as a Pressing Security Concern within NATO's Strategic Framework and Finland's Accession to NATO

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Abstract

Climate change is a multifaceted problem that has links to ecological transformations, geographical alternations, geostrategic shifts, and political tensions. As a result, it multiplies security challenges for states and international organizations. To capture the multilayered dimensions of climate change, this article recognizes the theoretical model of securitization as a spectrum consisting of threat-based and risk-based security logics. The article explores how the North Atlantic Treaty Organization (NATO) and Finland address climate change and, by extension, the challenges emerging in the Arctic region. While NATO pays close attention to climate resilience for preserving the Allied operational effectiveness and ensuring its role in defense and deterrence, both NATO and Finland articulate their concerns over Russia's growing military activities and presence in the High North, where Moscow finds strategic opportunities thanks to the increasing Arctic accessibility because of climate change. The article sheds light on a discussion about potential competition in the Arctic region and points out the paths that might lead to tension beyond it.

Keywords

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Introduction

The security risks produced by climate change appear to be recent phenomena within the North Atlantic Treaty Organization (NATO). Still, the Alliance has been cognizant of the issue for a longer time. The establishment of the Committee on the Challenges to Modern Society in 1969, which was tasked with examining defense-related environmental issues, was the initial step.[1] Although NATO had attempted to integrate environmental protection guidelines and standards into its operations in the 1970s,[2] the Alliance paid more attention to these issues in the 2010s.

The 2010 NATO Strategic Concept was the first document in which the Alliance recognized climate change as a factor affecting its security environment.[3] After adopting the "Green Defense Framework"[4] in 2014 to improve its green profile, NATO published the report entitled "NATO 2030: United for a New Era in 2020." Presenting a forward-looking vision for NATO's strategic environment and political dimension, this report underlines the potential risks posed by climate change with respect to its implications for the Arctic and the High North,[5] NATO's planning on resilience and crisis management, and Allied security and economic interests.[6]

In 2021, NATO introduced a structured and systemized approach by preparing the "Climate Change and Security Action Plan." In the plan, NATO assesses the impacts of climate change on security, frames the issue within the context of the Alliance, and outlines the agenda on climate change and security.[7] More recently, the 2022 Strategic Concept discusses climate change with a comprehensive understanding and specifies the consequences of climate change in connection with NATO's strategic environment, the efforts for civilian crisis management, and the impacts on defense and security.[8]

This short timeline unveils how NATO has integrated the security considerations rooted in climate change into its security agenda with a gradually expanding perception. Hence, this article argues that the climate change policy frameworks adopted by states or international organizations shape how they act on mid-range issues, such as region-specific security challenges posed by climate change, so NATO's and Finland's overall stances on the Arctic question correspond to their

policies on climate change. Security concerns revolving around the Arctic and the recent expansion of the NATO Alliance can crystalize a shift in the center of gravity of European security architecture towards the northeast. Such a North-focusing outlook may request to take into account what happens in the Arctic since the risk of transregional and extra-regional geopolitical confrontations might create a disturbance in the wider geography under the umbrella of NATO.

The article aims to shed new insights in light of the broader logic of securitization theory (ST) into the recent incentives within NATO to engage carefully with the issue of climate change. Having been motivated by NATO's recent enlargement with Finland, the article seeks to build a connection between NATO's strategy for the High North and Finland's policy concept with respect to the Arctic region, and to uncover a foreseeable competitive environment in the Arctic region due to the consequences of climate change. It is crucial to note that the article does not determine the direct causes of conflict between NATO allies and non-NATO Arctic states—the eight Arctic states include Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden, and the United States of America—over the High North or how the spillovers of such a conflict may develop along the fault lines outside the region. Nevertheless, the article hints at the overlapping of NATO's strategic orientation and Finland's policy agenda concerning the High North, and it concludes with a prospective analysis of the implications of tension in the Arctic.

The Logic of Security for the Issue of Climate Change

State actors who share identities, values, and meanings lay the foundation of security communities. In establishing a stable peace, the community-building process relies on the development of shared understandings, communication among members, common representations of threats, and the distinction of insider and outsider in partaking in the peace ensured by the community.[9] As the core tenet of a security community is its ability to build a society relying on mutual aid, security communities may impose additional obligations and responsibilities on their members. Still, member states may preserve distinctive interests formed outside of the group dynamics.[10]

The institutionalization of security communities allows for the role of international organizations to be taken into account. An international organization provides a platform that facilitates the design of mutual trust and collective identity, and it disseminates the notions of common fate and unilateral self-restraint.[11] Thus, actors in security communities share the same threats and objectives which should be protected.[12] The success of security communities depends on their ability to adapt themselves and respond to new security concerns.

Composed of the three basic tasks of collective defense, crisis management, and cooperative security, NATO is a security community emphasizing the principles of democracy, individual liberty, and the rule of law as the binding factors of the Alliance in the post-Cold War period.[13] To rationalize its present and future existence as a security organization, NATO experienced an epistemic reorientation adjusting its security agenda, and embracing unconventional threats stemming from societal instability and non-military domains.[14]

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The process of incorporating external threats into the agenda of the security community constitutes the basis for conceptualizing regional security complexes.[15] By virtue of the NATO initiatives, over time, the security architecture of the transatlantic area has become a regional security complex since the problems covered and removed from the member states' security agenda have shown a high level of interconnection.[16] At this point, NATO is engaged in the management of present and future security risks identified with instability, uncertainty, and unpredictability,[17] including the issue of climate change and, by extension, its geopolitical and ecological consequences in the Arctic region.

Having recognized the nature of climate change as a threat multiplier that aggravates those extant risks and threats, this study treats climate

change as a matter of macrosecuritization in connection with its intricate dimensions echoing in the Arctic. This understanding merges the implications of climate change on security dynamics with the geostrategic repositioning in the Circumpolar North as a result of competitive state behaviors in the region.[18]

Therefore, ST serves to disclose how NATO has conceptualized its stance on security issues in general. For ST, security necessitates a specific grammar directed to formulating a speech act towards a threat perception regarding a referent object.[19] In addition to the speech act, there are two more elements of ST, namely the securitizing actor and the audience. While the securitizing actor, i.e., NATO and the Secretary General of NATO Jens Stoltenberg, performs the speech act, the audience, or NATO member states, makes the decision to accept or reject the speech act aiming at the referent object—NATO member states, their citizens, and/or operational capabilities—that is endangered by the threat (climate change) and needs to be securitized. Thus, this article relies on the official documents published by NATO and the speeches and statements delivered by NATO officials, especially Secretary General Jens Stoltenberg (2014-ongoing). The article emphasizes the material provided by the Secretary General as he holds the leadership post and considers himself to be "responsible for all decisions that [the] Alliance has to take […]".[20]

In building its theoretical framework, the study embraces the approach of Diez et al. as they restructured the securitization understanding presented by the Copenhagen School.[21] According to Diez et al., the concepts of threatification and riskification constitute the securitization continuum where threat and risk are subsets of security logic. While threat-based security refers to existential and immediate threats, direct causes of harm, and emergency measures to eradicate and defend against dangers, risk-based security leans on the uncertainty and unease of dangers, the conditions and constitutive causes of making future harmful events possible, and the efforts for managing and governing the potential consequences of harm to more than one referent object concurrently.[22]

These varied security articulations unveil distinct implications of threatification and riskification for climate change. The threatification

of climate change highlights imminent violent conflicts, social tensions, and weakening state security in connection with deteriorating resources and competitive conditions. Short-term immediate measures are the remedies for addressing the threat. Thus, the threatification of climate change provides a legitimate ground for the acceptance and use of extraordinary measures and policy actions.[23] The future-oriented outlook on the riskification of climate change may, however, result in long-term precautionary actions such as fostering the regulatory capacity of international institutions, curbing the level of carbon emissions, constructing resilient infrastructure and societal systems, and managing migration and scarce resources.[24] Therefore, the riskification of climate change confirms that security policies are means to respond to relevant challenges, but these policies are non-exceptional measures and demonstrate ordinary characteristics.[25]

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In this regard, mitigation and adaptation are the backbones of the climate change agenda. Applying this two-component logic of security, the targets of mitigation and adaptation measures determine whether these efforts address threats or risks. If adaptation serves to advance the level of resilience of the population, it means that the adaptation measures respond to riskified security challenges. If adaptation measures refer to the preparations for defending the referent object against the threat, these measures become part of combating a danger defined within the threatification process. Similarly, if the mitigation strategies concentrate on eliminating threats by any means, these strategies correspond to a danger contemplated within the framework of the threatification of climate change. If mitigation strategies employ tools for alleviating the effects of climate-related challenges by forming emissions-trading regimes, it acts as a risk strategy.[26]

NATO Policy Framework for Climate Change

Secretary General Stoltenberg regards NATO as more than a military alliance and reasons the need for NATO's active contributions to combat climate change by invoking Paragraph 3 of the Washington Treaty, which comprises a basis for the responsibility to build a resilient infrastructure for sustaining individual and collective capacity.[27] Thus, Stoltenberg outlines three basic duties for NATO's engagement with climate change.[28] For Stoltenberg, NATO should first *understand* the dynamic linking climate change to security. NATO should be aware of security risks due to increasing competition over scarce resources and migration. Second, NATO should take the necessary actions to cut emissions from military activities and installations to contribute to the *mitigation* of climate change. Third, NATO should *adapt* to extreme weather conditions by modernizing its operation and mission planning, military exercises, and fixed and deployed equipment.

In the first step, NATO acknowledges that climate change multiplies the threats in the Euro-Atlantic region and the Alliance's wider neighborhood.[29] Stoltenberg also indicates that climate change deteriorates weather conditions and precipitation regimes, and this dynamic discloses the indirect role of climate change in exacerbating terrorist activities and migration, increasing competition over scarce resources and creating geopolitical competition in the Arctic.[30] These developments challenge the state of security within NATO's sphere of responsibility,[31] so NATO perceives climate change as a risk-based issue requiring the collective actions of the Alliance.[32]

Additionally, the Secretary General published a report dated 2022 to assess the security impacts of climate change with respect to NATO's strategic environment, the Alliance's assets and installations, NATO's missions and multi-domain operations, and its resilience and civil preparedness.[33] The report considers Europe, North America, the Middle East and North Africa/the Sahel, and the High North within the strategic environment where multiple harmful events, including extreme weather, ocean, and land hazards, can be experienced simultaneously. This aspect reveals the risk discourse employed by the Secretary General as it indicates those conditions and constitutive causes that make future harmful events possible. These articulations also generate shared

meanings that construct NATO as a security community and portray the Euro-Atlantic region as a regional security complex.

With regard to mitigation efforts, Stoltenberg upholds that NATO, as a part of the international community,[34] should recognize the responsibility of addressing climate change.[35] Emissions-reduction measures, sustainable military materials, and the green design of the military formation comply with the integration of renewable energies into NATO's energy mix. Combining these measures with ensuring NATO's military energy security is part of the risk discourse as it aims to manage the process of ensuring the security of operational capabilities within the Alliance.

From the perspective of adapting to climate change, Stoltenberg underlines the harsher environmental conditions for critical infrastructure, equipment, and capabilities to conduct military operations, training, or disaster relief efforts.[36] As climate change tests the effectiveness, mobility, preparedness, and resilience of NATO's military posts, personnel, and equipment, these climatic conditions challenge the Alliance's deployment capabilities and military operativeness, raise time cost, and require a larger budget for financing military operations.[37] Hence, NATO discusses the challenges of climate change for the armed forces, and hints at four operational domains: air, land, space, and maritime.[38]

Exclusive to maritime operations, the Arctic is the most challenging region for NATO's armed forces given the extreme and rapidly changing temperatures.[39] In this sense, Stoltenberg primarily handles the deteriorating environmental conditions in the High North from a military-strategic perspective.[40] The melting of ice leads to critical implications for NATO, as these changes will introduce new maritime navigation lines available for a longer period, facilitate the access of armed forces to the region, and create new opportunities to exploit unattainable natural resources. The second-order security implications of climate change lead to competitive state behaviors, which may be derived

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from the growing military capabilities, existence, and structure of non-NATO nations in the Arctic region. This angle contributes to the risk discourse since it connects the resilience of NATO's military effectiveness to the uncertainty and unease induced by climate change.

The Arctic as a Pertinent Subject for NATO's Security Agenda

The consequences of climate change are revealed in the transformation of the physical environmental across the Arctic region. The careful management of new geopolitical challenges is a priority for NATO's Arctic strategy. Therefore, the first topic is related to the warming of the Arctic Ocean and the melting of the polar ice caps. These environmental changes extend the period of navigability in Arctic waterways through the Northern Sea Route and the Northeast and Northwest Passages. These new conditions attract the attention of regional and non-regional states, which may increase the likelihood of experiencing intense confrontations.[41]

The second challenge is related to the potential competition lines for controlling the exploitation and extraction of untapped natural resources which are located in areas of potentially overlapping territorial claims. In this respect, the third issue is the management of new fishing stocks which may trigger disputes in the region.[42] Another competition can occur with regard to the instalment of physical and digital communication lines.[43] Although enhancing maritime access shortens the time of travel and creates commercial benefits, this situation may also trigger contestations over navigation rights and displeasure regarding the growing interest and existence of non-Arctic countries such as China.[44]

The last risk is the culmination of the abovementioned challenges. It concerns the possible militarization of the Arctic region for the sake of protecting sovereign rights and promoting the safety of navigation.[45] From the perspective of NATO, its presence in the High North relies on Article 5, which institutes the Alliance's collective defense approach to the region.[46] Although NATO pursued the over-the-horizon approach from 2009 to 2013, promoting situational awareness rather than performing military exercises, new conditions reshaped by climate change facilitate the diffusion of transregional and extra-regional

geopolitical dynamics towards the Arctic.[47] Moreover, both regional and non-regional actors give place to the Arctic in their security calculations and military strategies, and Russia and China seek to engage with the region ambitiously.[48]

While exploring the potential consequences of transformative physical environmental changes across the Arctic in connection with NATO's strategic orientation, Russia and China's positioning are critical for understanding the geopolitical and economic dynamics in the region, where they find opportunities to utilize new physical conditions by reason of climate change. From the perspective of Russian policymakers, the Arctic is an inseparable component of the overall Russian military strategy. Russian presence in the Arctic is essential for protecting Russia's territory, improving its strategic deterrence capabilities, and harboring its nuclear submarine fleet. Additionally, Russia's Arctic posture contributes to its projection of acquiring great power status. Relying heavily on the natural resources industry, Russia also regards the resource-rich Arctic region as a zone that would help Moscow protect its economic interests and leading position in the fields of oil, gas, and mining.[49]

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Describing itself as a "Near-Arctic State, one of the continental States that are closest to the Arctic Circle," China aims to utilize the Arctic's physical transformation and pays close attention to the Arctic shipping routes, consisting of the Northeast Passage, the Northwest Passage, and the Central Passage, as lines of the Polar Silk Road scheme in connection with its broader Belt and Road Initiative. Another aspect of Chinese interest in the Arctic focuses on the exploration for oil, gas, minerals, and other non-living resources, and their exploitation.[50] Here, China might pursue diversifying both its network of trade routes and the import of natural resources.

Yet, the concept of Arctic exceptionalism, which outlines that the region is not the subject of intraregional military tensions and is immune to geopolitical competitions experienced elsewhere, has

lost its explanatory power in recent developments.[51] Russia's military involvement in Ukraine reconstructed the global security environment. Stoltenberg stated that NATO, as a defensive alliance, is determined to "preserve security, stability and co-operation in the High North" whereas authoritarian regimes intend to extend their presence towards the Arctic.[52] Stoltenberg refers to, particularly, Russia's enlarging armed forces in the High North. This process brings the entire Circumpolar North into NATO's security agenda. In this regard, Russia's heightening military existence in the High North is a major concern to the Arctic NATO members, as the insider/outsider distinction based on being part of the peace environment sustained by the security community features risks perceptions.

The rapidly changing Euro-Atlantic security complex, on the one hand, led the NATO Arctic states to envisage the Alliance's military presence in the High North to counter the risks posed by Russian aggression. On the other hand, it made Finland and Sweden express their leaning to reposition themselves as part of NATO's collective security umbrella instead of maintaining their non-aligned status.[53]

Finland as a NATO Ally: The Overlap between Finland's and NATO's Security Considerations in the Arctic Region

Although the 2014 Ukraine crisis which resulted in the annexation of Crimea by the Russian Federation increased the level of caution among the Nordic countries, the Russo-Ukrainian War in 2022 refashioned the wider European security architecture and urged Sweden and Finland to apply for becoming NATO members. The limited impact of the 2014 armed conflict was based on the assessment that it was a leftover dispute from the time of the Soviet Union. However, the full-scale invasion of Ukraine in 2022 disclosed Russia's attitude that the Kremlin would not refrain from utilizing its armed forces against its neighbors.[54]

The initial unintended consequence of Russia's Ukraine campaign recalls how Tsarist Russia found itself in the position of limiting its presence in the Arctic. After the defeat of Tsarist Russia in the Crimean War (1853-1856), Russia faced a weakened imperial army, a drained treasury, and an undermined influence in Europe. The country could not sustain its sovereignty in Alaska and thus sold it.[55] Similarly, Russia's

military campaign initiated in 2022 in the Ukrainian geography cost Moscow its geostrategic underpinnings in the Arctic. Accordingly, Russia's recent move caused a shift in Finland's and Sweden's policy frameworks from their long-held militarily non-aligned position to the enthusiastic appeal for membership in NATO. Addressing their concerns, NATO responded in a welcoming way to the two countries' applications to counter any potential aggressive move by Russia.

Following Sweden's and Finland's applications for NATO membership, Türkiye voiced its discontent and reservations regarding the two countries' responsibilities as faithful allies in connection to Ankara's security considerations. Recep Tayyip Erdoğan, President of the Republic of Türkiye (2014-ongoing), articulated that Türkiye preconditioned tighter measures against the PKK and all its extensions, the PYD/YPG in particular, by Stockholm and Helsinki for their prospective membership.[56] Satisfied with Finland's performance in fulfilling its commitments outlined in the trilateral memorandum, Türkiye lifted its withholding of consent.[57]

According to the strategy paper published by the Finnish government, Finland's Arctic policy is composed of four priority areas: climate change mitigation and adaptation, the well-being and rights of indigenous peoples, Arctic expertise, and relevant infrastructure and logistics.

Thus, six of the eight internationally recognized Arctic states are now NATO countries.[58] In its simplest terms, Finland's accession has doubled the length of NATO's border with Russia and may cause NATO to allocate more resources to its defense in connection with Arctic issues. In other words, NATO should inevitably incur responsibility for significantly enlarging its direct border with Russia after Finland's membership, and this reconfigured strategic environment would affect NATO's role in sustaining defense and deterrence in the Alliance's northeastern zone. This expansion can place the Nordic dimension and defense outlook at NATO's forefront and carry NATO's strategic center of gravity to the northern parts of the Alliance. In this respect, the examination of Finland's foreign policy priorities within the context of the Arctic region helps understand which aspects may heighten in NATO's security agenda.

According to the strategy paper published by the Finnish government, Finland's Arctic policy is composed of four priority areas: climate change mitigation and adaptation, the well-being and rights of indigenous peoples, Arctic expertise, and relevant infrastructure and logistics. In addition, Finland is developing a comprehensive understanding of security assessment and building an interconnected security framework that links the Baltic Sea region, Finland's Arctic neighborhood, and the North Atlantic. Considering itself an Arctic country, Finland conceptualizes a perspective consisting of "ecological carrying capacity, climate protection, principles of sustainable development, and respect for the rights of indigenous peoples" that is supposed to guide all activities in the Arctic.[59]

The Finnish government recognizes the changes due to climatic factors as priority issues for the Arctic region. Hence, the impacts of climate change on Arctic navigation lanes reveal "risk-prone" characteristics shaping security and stability with respect to the increasing interest of both regional and non-regional countries in the Arctic.[60] Moreover, while Finland sees climate change as partially responsible for the growing military activities and presence, and the craving for extracting natural resources in the region, it acknowledges that transregional and extra-regional political or military confrontations between great powers affect the balance of the Arctic. At this point, Finland expresses its cautious position towards Russia's tactical positioning, and its growing military and naval activities in the broader neighborhood, as well as Russia's improving installations and increasing presence in the Circumpolar North. As Finland presumes that the development of the Arctic infrastructure, including telecommunication, makes the region part of a wider security agenda, it refers to Russia's and China's involvement at the regional level and emphasizes the counteraction by the United States, Canada, and the European NATO countries for the purpose of upholding their readiness.[61]

At this conjunction, it is important to take note of NATO's cautious approach to Russia. In the 2022 Strategic Concept, NATO explicitly considers Russia to be "the most significant and direct threat to Allies' security and to peace and stability in the Euro-Atlantic area."[62] The perceived Russian aggression in the High North is associated with its growing military reinforcements and those related vulnerabilities with

regard to Russia's capabilities, upsetting freedom of navigation in the wider North Atlantic.[63]

Overall, both NATO and the Finish government handle the issue of climate change with respect to its impacts on the Arctic within the framework of the riskification of climate change. These two actors focus on the potential dangers, instability, competitive state behaviors, and confrontations multiplied by the adverse outcomes of changing climatic conditions. They stress the importance of infrastructural and logistical capabilities, the rising militarization, and the awareness of new geopolitical challenges in terms of new navigation routes and resource extraction and exploitation. By considering the overlapping positions between NATO's and Finland's security agendas and the possible dominance within the Alliance's security architecture towards responding to the developments in its northern flank, the Arctic might emerge as an issue imposing new responsibilities on NATO allies located away from the Arctic dynamics.

Conclusion

This article has argued that the actors' approaches to climate change conceptualize the overall framework in response to developments in the Arctic region. Accordingly, the article reveals that the quickening pace of the melting of the polar ice caps alters the geopolitical order, multiplies the risks, and intensifies the race to control and extract the Arctic's potential. Thus, the implications of climate change reveal themselves within the framework of NATO's efforts to promote climate resilience for preserving its operational capabilities and to formulate cooperation on Arctic Administrative Areas with security and military aspects. Also, NATO regards Russia's aggressive attitudes, especially its military action in Ukraine in 2022, as an important development that changes the dynamics in the Northern Hemisphere. Having caused a seismic shift in the security landscape of the North, this critical juncture incentivized a process where NATO and other

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Nordic states think of counteracting Russian aggression. Here, their converging positions on Russia formed the basis for addressing Russia's Arctic interest, which has also been excited by physical alteration in the region due to climate change.

Assuming the theoretical aspect framed by the riskification of climate change, the article, moreover, paves the way for another dimension regarding the discussions about the Arctic. In this sense, the article proposes that Finland's membership in NATO and Sweden's potential successful accession might drag the Alliance into a competitive environment with Russia so that the strategic space of NATO could be gradually oriented towards the North and the security concerns of the Alliance would be heightened by the risk-prone nature of climate change. The more the Nordic countries assume a pivotal position within NATO, the more their security concerns would be instilled into the Alliance's agenda.

There are two potential ways that tension can occur between NATO and Russia. The first scenario is a conflict in the Arctic region, which can emerge at the state-to-state level, intra-Arctic level, or NATO-to-Russia level. The second potential scenario delineates the tensions spilling over onto the security complexes away from the Arctic region. The enclosure of Russia both in the Arctic region and the Baltic Sea due to measures taken by NATO states indicates a geostrategic shift and might pressure Moscow to find new gateways and bastions to bypass these NATO moves or disperse its strategic positioning. These inferences contend that future escalations in the Arctic might not remain isolated and might even evolve into a confrontation requiring the execution of the concept of mutual aid legislated in Article 5 (the principle of collective defense) which constitutes the backbone of the Trans-Atlantic Alliance as a security community.

At this point, NATO allies geographically distant from the Arctic might need to form a strategic scheme against any spillovers, adopt a risk-based understanding to respond to future harmful events, and manage uncertainties originating from the challenges multiplied by climate change in relation to the Arctic region.

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